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REMARKS

This Response is offered in reply to the office action of March 17, 2003. A petition and fee for two month time extension are enclosed.

In paragraph 1 of the office action, Figure 3 is objected to in that reference lines for the width F and the diameter G extend into the gasket. Applicant encloses herewith a Letter To Official Draftsperson with a new Figure 3 that corrects the reference lines for width F and diameter G. Also enclosed is a marked-up Figure 3 showing the changes in red. Reconsideration of the objection to the drawings is requested.

In paragraphs 2-9 of the office action, claims 1, 2, 5, 6, 17, 19, and 21 are objected to for the reasons set forth.

With respect to claim 1, the terminology "circular arcs" is intended to mean a circle or part of a circle such that the claim terminology "said elevations having a shape other than that of circular arcs at least partly surrounding said combustion chamber opening" is present to distinguish over the prior art gaskets described at page 2, lines 3-10, particularly lines 9 and 15, and at page 5, lines 3-10 of Applicant's specification.

Applicant has amended claims 1, 2, 5, 6, 17, 19, and 21 in a manner believed to overcome the objections. Reconsideration of the objections is requested.

In paragraph 11 of the office action, claims 1 and 15-19 are rejected under 35 USC 102(b) by European Patent 0 470 790 (the '790 EP patent).

Applicant believes the pending claims are allowable over the '790 EP patent. The '790 EP patent provides a gasket for reducing heat transmission between two engine parts. Specifically, the gasket of the '790 EP patent is to be mounted between the engine and the inlet manifold as described column 1, line 24 and column 2, line 3 of the '790 EP patent. The examiner

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states at the bottom of page 3 through top of page 4 of the office action that the '790 EP patent discloses a cylinder head gasket with at least one metallic gasket plate comprising at least one sheet metal layer having at least one bead C22a surrounding an opening 20 in the sheet metal layer and at least one delimiting device C23a in the sheet metal layer. Applicant respectfully disagrees.

Firstly, as pointed out above, the '790 EP patent involves a gasket for mounting between the engine and the inlet manifold (see column 1, line 24 and column 2, line 3 of the '790 patent). The '790 EP patent does not involve a cylinder head gasket as recited in Applicant's claims.

Secondly, in referring to reference numerals C22a and C23a, the examiner appears to be referring to Figure 7 of the '790 EP patent where the examiner incorrectly characterizes reference numeral C23a as a delimiting device. In contrast, the reference numeral C23a designates projections between the sheet metal layers C22, C23, and C24 that constitute spacers (or space forming devices) that guarantee air gaps exist between the sheet metal layers C22, C23, and C24 in the gasket clamped between the engine and the inlet manifold. For example, column 5, lines 30-46 of the '790 EP patent describes Figure 7 and indicates that "since the small projections C23a are formed to provide spaces C26 between the plates, insulating air layer is formed".

The '790 EP patent expressly teaches that projections C23a constitute spacers to form air insulating spaces between the sheet metal layers. The examiner's characterization of the projections C23a as delimiting devices is incorrect and flies in the face of the express teachings of the '790 EP patent.

Thirdly, the diameter of the projections C23a of the '790 EP patent is substantially smaller than the distances between the projections. The '790 EP patent thus is in contrast to

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Applicant's claim 1 that recites, in plan view of the sheet metal layer provided with the elevations, that the total area occupied by all of the elevations is at least equal to half of the total area occupied by the delimiting device.

Further, the '790 EP patent fails to disclose the feature of Applicant's claim that the deformability in height of Applicant's elevations is recited to be smaller than the deformability in height of the bead.

Applicant's pending claim 1 thus is believed to distinguish patentably over the '790 EP patent. The same is true of claims 15-16 reciting features of Applicant's recited delimiting device, which is not disclosed in the '790 EP patent. Claim 17 recites that the spacings of the neighboring elevations are smaller than the maximum diameters of the elevations in a manner not disclosed in the '790 EP patent. The same is true of claims 18-19 which recite features of Applicant's delimiting elevations. The projections C23a of the '790 EP patent constitute spacers and not delimiting devices or elevations as explained above and as recited in claims 1 and 15-19.

In paragraph 15 of the office action, claims 1-19, 23, and 25 are rejected under 35 USC 103(a) in view of the Udagawa US Patent 6 250 645 taken with the above '790 EP patent.

The examiner states at the bottom of page 5 of the office action that the '645 patent discloses a cylinder head gasket with a substantially metallic gasket plate comprising at least one sheet metal layer having at least one bead D13 surrounding a combustion chamber opening Hc in the sheet metal layer and at least one delimiting device D11, D12 in the sheet metal layer. Applicant respectfully disagrees.

In particular, in making this statement, the examiner is referring to Figure 5 of the '645 patent where annular projections D12 and grooves D11 are shown and extend concentrically around the opening Hc such that annular

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projections D12 constitute annular sealing projections as expressly described in the '645 patent at column 1, lines 9-11; column 2, lines 4-6 and 10-13; and column 3, lines 61-65 for analogous annular projections A12 of Figure 2 of the patent. Applicant would point out to the examiner that Figure 5 of the '645 patent as well as Figure 2 thereof are taken in radial section (e.g. along a radial line 2-2 in Figure 1) and not in a circumferential direction as set forth in paragraph (a) of Applicant's claim 1. The examiner appears to be misconstruing Figure 5 of the '645 patent with respect to paragraph (a) of claim 1 of Applicant.

Further, the '645 patent describes annular projections D12 and grooves D11 that extend concentrically as circles around the opening Hc in a manner that is in contrast to and teaches away from paragraph (b) of Applicant's claim 1.

Moreover, the examiner incorrectly ignores the fundamental difference between the '645 patent and the '790 EP patent in proposing to combine their teachings as set forth in paragraph 16 of the office action. In particular, as mentioned in preceding paragraphs, the projections D12 of Figure 5 of the '645 patent constitute annular sealing projections that extend in uninterrupted manner around the combustion chamber opening. In contrast, the '790 EP patent teaches spaced apart (non-sealing) projections C23a to provide an air insulating space between sheet metal layers of the gasket. One skilled in the art would have no motivation to combine the spaced apart (non-sealing) projections C23a of the '790 EP patent in the '645 patent as proposed by the examiner since the sealing function of the annular sealing projections D12 of the '645 patent would be lost. The cited references themselves teach away from making such a combination. The examiner will now appreciate the incorrectness of proposing such a combination of the cited references.

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Reconsideration of the Section 103 rejection of claims 1-19, 23, and 25 is requested. Depending claims 2-19, 23, and 25 recite features not disclosed or suggested by the cited references. For example, claims 2-19, 23, and 25 involve features of Applicant's delimiting device, which is not even present in the cited references as discussed above. Further, claim 23 recites a delimiting device that comprises a ring of beads that extend approximately in a radial direction relative to the combustion chamber opening in a manner not disclosed or suggested in the cited references.

In paragraph 26 of the office action, claims 1, 21, 22, and 24 are rejected under 35 USC 103(a) in view of the Udagawa US Patent 6 250 645 taken with the Udagawa US Patent 6 036 195.

The deficiencies of the '645 patent are pointed out above where Applicant pointed out that Figure 5 of the patent shows annular sealing projections D12 and grooves D11 that extend concentrically around the opening Hc such that annular projections D12 constitute annular sealing projections. This is described expressly at column 1, lines 9-11; column 2, lines 4-6 and 10-13; and column 3, lines 61-65 for analogous annular projections A12 of Figure 2 of the '645 patent. Further, the '645 patent describes annular projections D12 and grooves D11 that extend concentrically as circles around the combustion chamber opening in a manner that is in contrast to and teaches away from Applicant's claims 1, 21, 22 and 24.

The '195 patent cited by the examiner suffers from the same deficiencies as the '645 patent. Namely, the circular bead B15 referred to by the examiner extends concentrically around the combustion chamber opening Hc in Figure 4 such that the bead B15 constitutes an annular sealing bead around the opening. The corrugated bead B16 shown in Figure 4 extends around the combustion chamber opening Hc such that the bead B16 also constitutes a sealing bead around the opening. Such "double"

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sealing beads are described expressly at column 2, lines 24-31 and lines 40-42 and column 4, lines 51-60 of the '195 patent.

Moreover, in Figures 5(a), 5(b), and 5(c) of the '195 patent, the sealing beads B15 and B16 around the combustion chamber opening Hc are shown as having the same height (Figures 5(a) and 5(c)) or the sealing bead B16 around combustion chamber opening Hc is shown having a greater height than sealing bead B15 (Figure 5(b)) in a manner contrary to Applicant's cylinder head gasket delimiting device.

In addition, Figure 4 of the '195 patent shows that, in plan view, the total area occupied by the sealing bead B16 is less than 50% of the total area occupied by the annular zone defined by the sealing bead B16. This is in contrast to Applicant's claims.

Neither the '645 patent nor the '195 patent discloses or suggests a cylinder head gasket having a delimiting device set forth in Applicant's claims 1, 21, 22, and 24. Instead, both cited patents expressly teach merely to provide multiple sealing beads around the combustion chamber opening. The examiner's proposed combination of the '195 patent in the '645 patent will result in multiple sealing beads being disposed around the combustion chamber opening regardless of whether the inner sealing bead is corrugated or circular. The proposed combination does not yield a cylinder head gasket having a delimiting device as recited in Applicant's claims 1, 21, 22, and 24.

Reconsideration of the Section 103 rejection of claims 1, 21, 22, and 24 is requested.

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Applicant believes the pending claims are in allowable condition, and action to that end is requested.

Respectfully submitted,



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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service under 37 CFR 1.8 as first class mail in an envelope addressed to: Commissioner For Patents, P.O. Box 1450, Arlington, VA 22313-1450 on July 8, 2003.



Edward J. Timmer